



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
<http://dnr.state.il.us>

Pat Quinn, Governor
Marc Miller, Director

April 14, 2010

Ms. Lisa M. Waggoner
The Waggoner Law Firm, P.C.
Four North Walkup Avenue
Crystal Lake, IL 60014

RE: Thornton's Station, Lakemoor, Lake County
Endangered Species Consultation Program
EcoCAT Review #0903527

Dear Ms. Waggoner:

This letter concerns the Endangered Species Consultation for the proposed Thornton's Station, located at the intersection of Rt. 120 and Darrel Road in Lakemoor, Section 4, T44N, R9E. This project was submitted for consultation in accordance with the *Illinois Endangered Species Protection Act* [520 ILCS 10/11], the *Illinois Natural Areas Preservation Act* [525 ILCS 30/17], and Title 17 *Illinois Administrative Code* Part 1075.

As indicated earlier, the site drains to the **Lily Lake Illinois Natural Areas Inventory (INAI) Site**, which provides essential habitat for the State-listed endangered **Fern-Leaved Pondweed**, *Potamogeton robinsii*, and State-listed threatened **Grass-leaved Pondweed**, *Potamogeton gramineus*. It is the Department's biological opinion the proposed action is likely to adversely modify the Lily Lake INAI Site and the essential habitat for the listed species.

The Department received from the Village a Detailed Action Report containing site plans drawn up by W-T Civil Engineering; LLC these site plans were dated November 4, 2008. Subsequently, in the course of coordination with the U. S. Army Corps of Engineers, the Department received a copy of a Section 404 permit application from the consulting firm of ENCAP, Inc., containing site plans drawn up by W-T Civil Engineering, LLC for the same location and project; these plans were also dated November 4, 2008, but with revisions dated as recently as September 11, 2009.

However, these plans were not identical. They differed in the important particular that the plans submitted with the Village's response illustrate surface storm water detention, using a dry-basin design with a catch-basin restrictor, located at the east end of the parcel, whereas the submission to the Army Corps illustrates underground detention beneath the fueling area, with an oil/grit separator discharge located at the west end of the parcel.

The Department assumes the more recent revisions illustrate the intentions of the developer with respect to Village authorization and construction, and has formulated its recommendations on that basis.

The paramount environmental consideration is water quality. For a fueling station, the relevant pollutants to be controlled are oil, gasoline, anti-freeze (ethylene glycol), transmission fluid, solvents containing de-natured alcohol, and road salt. After passing through a small on-site wetland, the discharge will enter a dredged channel feeding Lily Lake.

Oil, gasoline, and transmission fluids (even synthetic) are not water-soluble and have a lower specific-gravity than water. If periodically maintained, the oil/grit separator will capture and remove the greater percentage of these fluids which enter the run-off train. However, failure to maintain the separator--by monitoring the level of captured fluids and removing them for disposal--will quickly reduce the effectiveness of this technology to zero, passing all wastes through the device and into the environment.

Ethylene glycol, de-natured alcohol, and salt are soluble in water and cannot be removed through separator technology. Ethylene glycol is highly toxic to most animals which ingest it, but is subject to microbial degradation; the same bacteria, present in wetlands, can convert alcohol to sugar. Salt, unfortunately, must be flushed through the system.

Recommendation #1. The Village should impose and enforce a strict separator clean-out maintenance regimen which meets or exceeds manufacturer's specifications.

Recommendation #2. The wetland receiving the direct discharge should be monitored annually for changes in vegetation composition, and restoration required if vegetation coverage falls below a functional level.

If, in fact, the proposal includes surface storage for storm water instead of underground storage, a dry basin as indicated provides little or nothing in terms of treatment for any of the pollutants listed above. While plants within the basin may retain some of the oily pollutants from minor precipitation events, during most events such pollutants will migrate off-site with the first flush of runoff.

Recommendation #3. Any surface storm water storage facility should be equipped with a discharge structure which retards or prevents the discharge of oily pollutants. This can be achieved in a number of different ways. (The commercial parcel directly north across the street is so equipped, if an example is needed.)

Consultation on the part of the Department is terminated. In accordance with 17 Ill. Adm. Code 1075.40(h), the [agency] must notify the Department of its decision regarding these recommendations, whether they will:

- Allow the action to proceed as originally proposed;
- Require the action to be modified per Department recommendations (please specify which measures if not all will be required); or
- Forgo the action.

This consultation is valid for two years unless new information becomes available that was not previously considered; the proposed action is modified; or additional species, essential habitat, or Natural Areas are identified in the vicinity. If the project has not been implemented within two years of the date of this letter, or any of the above listed conditions develop, a new consultation is necessary.

The natural resource review reflects the information existing in the Illinois Natural Heritage Database at the time of the project submittal, and should not be regarded as a final statement on the site being considered, nor should it be a substitute for detailed site surveys or field surveys required for environmental assessments. If additional protected resources are encountered during the project's implementation, the developer must comply with the applicable statutes and regulations. Also, note that termination does not imply IDNR's authorization or endorsement of the proposed action.

Please contact me if you have questions regarding this review.

Sincerely,

A handwritten signature in black ink that reads "Keith M. Shank". The signature is written in a cursive style with a large, stylized "K" and "S".

Keith M. Shank
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